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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,708	06/26/2001	Jose Joaquin Garcia-Luna-Aceves	UC2000-380-2	4694

8156 7590 06/29/2005

JOHN P. O'BANION
O'BANION & RITCHEY LLP
400 CAPITOL MALL SUITE 1550
SACRAMENTO, CA 95814

EXAMINER

JAROENCHONWANIT, BUNJOB

ART UNIT PAPER NUMBER

2143

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

09/892,708

Examiner

Bunjob Jaroenchonwanit

Applicant(s)

GARCIA-LUNA-ACEVES ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 1/14/05.
2. ☒ The allowed claim(s) is/are 1,4,6-10,13,15-18,21,23-34,37 and 39-70.
3. ☒ The drawings filed on 26 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 6/22/05.
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

**BUNJOB JAROENCHONWANIT
PRIMARY EXAMINER**

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with John O'Banion on 5/5/05.

3. The application has been amended as follows:

4. -- 1. A method for coordinating multipoint group members in a multicast network environment, comprising:

transmitting control directives between group members across a shared end-to-end multicast tree;

aggregating the forwarding of said control directives;

wherein multiple requests for the same information from different nodes in the tree are assembled in a hop node in the tree, and are forwarded combined;

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

10. A method for coordinating multipoint group members in a multicast network environment, comprising:

transmitting control directives between group members across a shared end-to-end multicast tree;

wherein if a target node is in the subtree of a node, the control directive is routed downward the subtree branch where the target resides;

wherein if a target node is not in the subtree of a node, the control directive is sent upward to its parent node; and

aggregating the forwarding of said control directives;

wherein multiple requests for the same information from different nodes in the tree are assembled in a hop node in the tree, and are forwarded combined;

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

18. A method for coordinating multipoint group members in a multicast network environment, comprising;

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transmitting control directives between group members across a shared end-to-end multicast tree;

assigning recursively and top-down unique prefix labels to each node joining the tree;

wherein a child node label contains as prefix the label of its parent;

aggregating the forwarding of said control directives;

wherein multiple requests for the same information from different nodes in the tree are assemble-d in a hop node in the tree, and are forwarded combined;

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

30. A method as recited in claim 28, wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

34. A method for coordinating multipoint group members in a multicast network environment, comprising:

transmitting control directives between group members across a shared end-to-end multicast tree;

wherein said tree corresponds to a single shared acknowledgment tree for concurrent multicasting;

aggregating the forwarding of said control directives;

wherein multiple requests for the same information from different nodes in the tree are assembled in a hop node in the tree, and are forwarded combined;

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

46. A method as recited in claim 44:

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

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wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

54. A method as recited in claim 52:

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

61. A method as recited in claim 59:

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes.

68. A method as recited in claim 66:

wherein if said hop node receives the same control directives from different nodes, said hop node aggregates them into one control directive, and checks if a response to said control directives can be satisfied locally by said hop node by polling its own state and the state of neighboring nodes; and

wherein if a response to said control directives cannot be satisfied locally by said hop node said aggregated control directive is self-routed up or down in the tree toward the target nodes. --

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bunjob Jaroenchonwanit whose telephone number is (571) 272-3913. The examiner can normally be reached on 8:00-17:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read 'B. Jarpenchonwanit', with a stylized flourish at the end.

Bunjob Jarpenchonwanit

Primary Examiner

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/bj

5/5/2005